



California ISO Coordinated Grid Planning Process

**Presentation to
Energy Action Plan Members**

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CALIFORNIA ISO

California Independent
System Operator

Interaction With Regulatory Agencies



Transmission Planning and FERC

- FERC provides ISO with its grid planning authority
- FERC looks to ISO for determinations as to whether new transmission constructed by the PTOs is “necessary and cost effective”
- FERC is assuming greater role in ensuring the reliability of the grid



Transmission Planning and CPUC

- At the CPUC, the ISO provides:
 - Input on various issues concerning transmission policy
 - Testimony on transmission projects during licensing
 - Assessments of new generation deliverability
 - Determination of project need (reliability or economic)
- Key processes for transmission planning at CPUC:
 - Siting process
 - Authorization of future resources for their jurisdictional utilities



Transmission Planning and CEC

- At the CEC, the ISO provides:
 - Written and verbal testimony on the transmission requirements for new generation during project licensing
 - Information on transmission requirements of potential future generation
- CEC provides the ISO:
 - Load forecasts
 - Generation retirement information
 - New generation information (including renewables)



ISO Grid Planning Process

1998

- Five Year Plans
- RMR Studies
- Generation Interconnections
- Determinist
- Reliability Only

2004

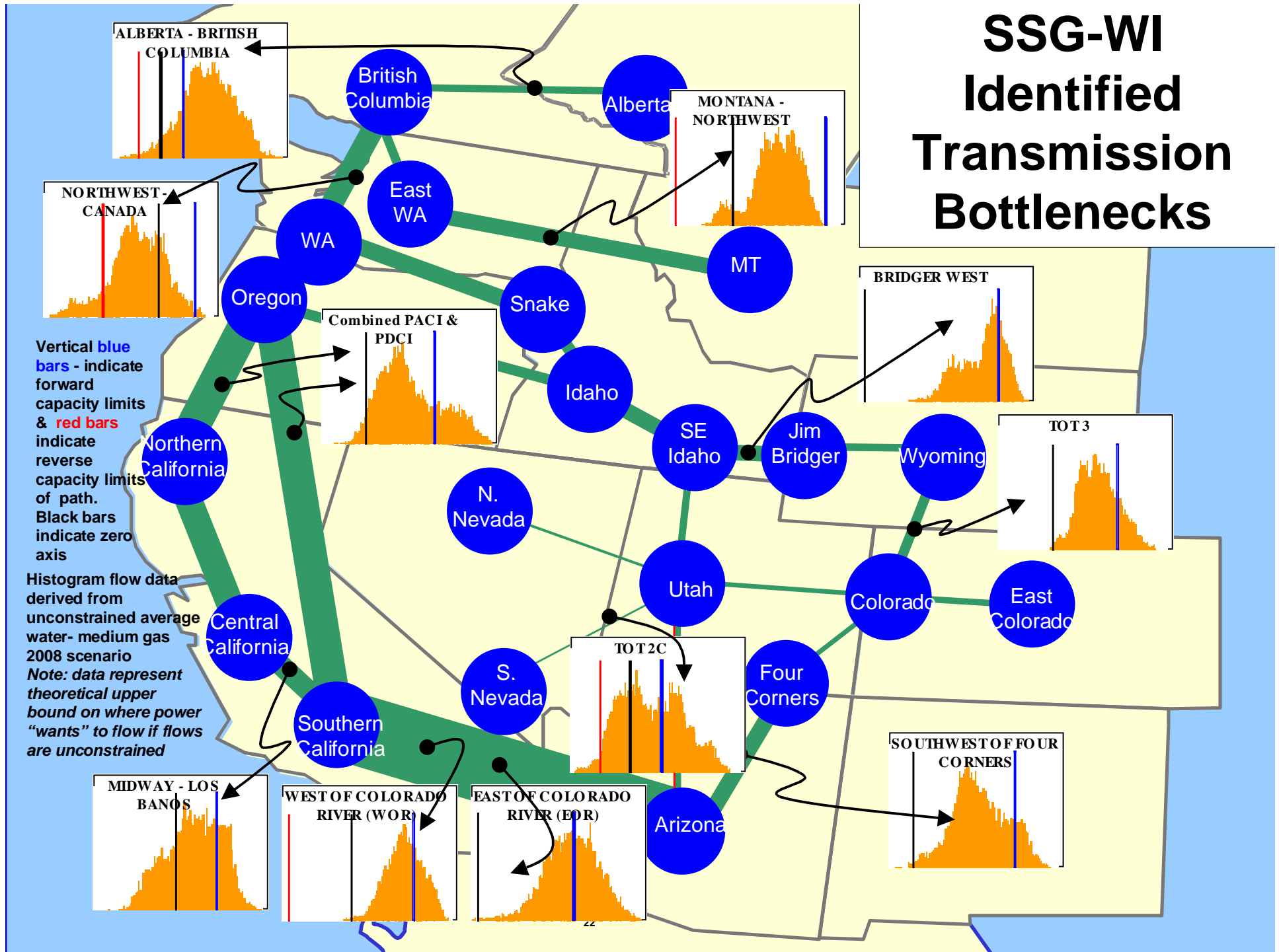
- Five Year Plans
- RMR Studies
- Generation Interconnections (FERC Filing)
- Economic Studies (London Economics)
- Probabilistic Planning
- Subregional Planning
- Deliverability Studies



ISO Process Purposes

- Interconnecting generation or load
- Protecting or enhancing reliability
- Ensuring efficient use of the grid
- Enhancing operating flexibility
- Reducing or eliminating congestion where economic
- Ratepayers benefit

SSG-WI Identified Transmission Bottlenecks





Possible/Under Construction Transmission (1 of 2)



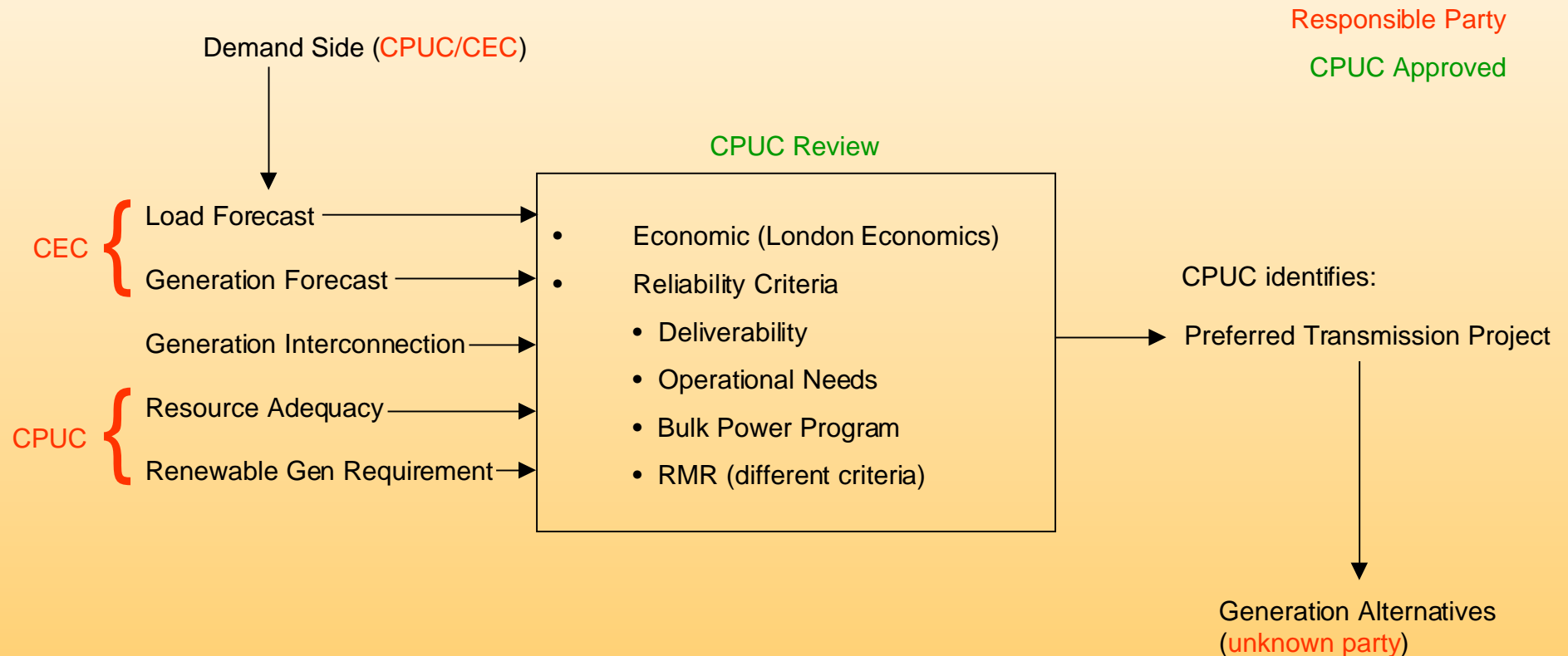


Possible/Under Construction Transmission (2 of 2)





Potential Partnership with CEC and CPUC





Summary

- The ISO works closely with the FERC, the CPUC, and the CEC, and many other stakeholders, when planning the grid
- The ISO has a comprehensive grid planning process that coordinates with the entire western interconnection through WECC and SSG-WI
- Data and assumptions used in the planning process come from a variety of sources including the CPUC, the CEC, the WECC, and the SSG-WI
- Reliability standards, developed primarily by NERC, guide the planning of the grid.

A photograph of a high-voltage electrical substation. The image shows several large, complex metal lattice structures (pylons and cross-arms) supporting high-voltage power lines. In the background, there are more pylons and a line of trees on a hillside under a clear blue sky. The foreground is a paved area with a chain-link fence. Overlaid on the center of the image is the word "Questions ?" in a large, bold, red, italicized font.

Questions ?